

## **AIDES FOR COMMAND LEVEL OFFICERS**

### **EXECUTIVE LEADERSHIP**

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## ABSTRACT

In the spring of 1995, the City of Providence, Rhode Island, was facing a \$41.1 million budget deficit, and was seeking to close fire companies to reduce personnel costs. The problem which prompted this research was that during collective bargaining negotiations for the 1995-1996, and 1996-1997 contract years, the elimination of chief's aides was being seriously considered as an alternative to closing fire companies, with little or no consideration of the operational or safety ramifications of such a move.

The purpose of this research was to evaluate whether or not chief's aides serve a necessary function in a modern, urban fire department, and to make recommendations for the Providence Fire Department in regards to the need to maintain or eliminate the chief's aide positions. The evaluative research method was used. The following research questions were posed:

1. Are there any nationally recognized standards, laws, or recommendations that pertain to aides for command level line officers?
2. How many fire departments in the United States provide aides for their command level line officers?
3. How many fire departments that provided aides to command level line officers in the past, have eliminated the aide's position?
4. In fire departments that assign aides to command level line officers, what are the responsibilities assigned to the aide?
5. In fire departments that do not assign aides to command level line officers, are there any alternative procedures intended to assist the Incident Commander (IC) with incident management?

The literature review examined the applicable standards, laws, and recommendations pertaining to aides. A survey of 214 fire departments from around the United States was conducted to gather information about aides. The results showed that the only standard or law that addressed chiefs aides was NFPA 1201, which required fire departments to make provisions for Incident Commanders (ICs) to assign aides when necessary. All of the authorities cited recommended that command level officers be assigned aides on a full-time basis, particularly in metropolitan areas.

The survey indicated that 14.3 percent of fire departments provided aides on a full-time basis to all command level officers, while 22.4 percent provided aides to at least some of their chief officers, based either upon rank or activity level. Fire departments that provided aides tended to be larger, fully paid departments providing protection to urban areas. Over 50 percent of the departments surveyed indicated that they provided aides in the past, with 86.8 percent of those departments who eliminated aides citing financial considerations as the reason aides were

eliminated. A variety of tasks were identified that were commonly performed by aides, as were a number of possible alternatives to help ICs manage emergency scenes.

Recommendations included maintaining aides for command level officers in Providence, development of a standard operating procedure (SOP) and training program for aides, and upgrading the position of aide to Fire Captain. Additional research was recommended to confirm the results of this research, and investigate some related topics.

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## INTRODUCTION

In the spring of 1995, the City of Providence, Rhode Island, faced an unprecedented projected budget deficit of \$41,100,000.00 for the upcoming 1995-1996 fiscal year (Mingis, 1995a). While the budget problems facing the City in 1995 were not new, they certainly were among the most severe in the City's history (Dykas, 1995; Mingis, 1995a).

One of the strategies employed by the City administration to cope with the budget problems was to "realign" the fire department in hopes of achieving a significant cost savings ("Cutbacks," 1995). Since personnel costs made up the largest share of the fire department budget, the administration focused on making a substantial cut in the number of firefighters on the payroll (Mingis, 1995b).

During negotiations for the 1995-1996 collective bargaining agreement with the firefighters union, the City was seeking to close two fire stations, eliminate three fire companies, obtain concessions in health care and pension benefits, and freeze wages for the fourth time in six years (Mingis, 1995b). During the course of negotiations, and ultimately arbitration, the elimination of the three chief's aides positions was discussed as an alternative cost-savings measure (G. Farrell, personal communication, January 4, 1997). The negotiation and arbitration proceedings extended well beyond the 1995-1996 fiscal year that ended on June 30, 1996, and into calendar year 1997.

The elimination of chief's aides positions struck a cord with many politicians, who found the idea that a chief officer had an aide (which they likened to a "chauffeur"), indicative of "waste in government" (A. Quintero, personal communication, January 5, 1997). Rank and file firefighters, faced with the prospect of station and company closings, or reduced staffing on engine and ladder companies, were not inclined to support aides for chief officers if it meant the loss of companies or staffing (G. Farrell, personal communication, January 4, 1997). Compounding this situation was the fact that the aides positions in Providence had no clearly defined job description, no written SOP, nor even a uniform role as different chiefs used their aides in widely varying ways (P.A. Wentworth, personal communication, January 2, 1997).

The problem which prompted this research project was that in light of severe budgetary constraints, the elimination of aides for Battalion and Deputy Chiefs was being seriously considered in the context of resolving a collective bargaining impasse. Since chief officers were not in the bargaining unit, they were essentially without a mechanism to voice their concerns during the collective bargaining process about the importance of aides. As a result, serious consideration was being given on both sides of the negotiating table to eliminating the aides positions, strictly on an economic basis, with little or no consideration being given to the operational efficiency or safety aspects of such a move.

The purpose of this research was to evaluate whether or not chief's aides serve a necessary function in a modern, urban fire department, and to make recommendations for the Providence Fire Department in regards to the need to maintain or eliminate the chief's aide positions. The evaluative research method was used. The following research questions were posed:

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## **BACKGROUND AND SIGNIFICANCE**

The position of "Chief's Aide" has had a long history in the fire service (Werner, 1974). In the days before radios, before motorized fire apparatus, and even before fire alarm telegraph boxes, chief's aides served a vital role as fire ground "messengers" (J. Ottoson, personal communication, October 9, 1996).

When the telegraph was adapted for use as a fire alarm and communications tool in the 1850s, the aide position underwent its first major change. Fire alarm boxes were used by the public to summon the fire department, as well as by fire personnel at the scene of an emergency, to communicate with the dispatch office (Werner, 1974). In order for a fire chief to request additional assistance at a fire, he or his designee would have to walk, run, or drive to the nearest fire alarm box and transmit the appropriate signal over the telegraph (J. McDonald, personal communication, January 2, 1997). The task of handling this responsibility commonly fell upon the chief's aide, allowing the fire chief to remain at the scene of the fire (J. McDonald, personal communication, January 2, 1997; Werner, 1974). The aide was thus able to serve as a vital communications link between the chief in command of the fire and the dispatch office (J. McDonald, personal communication, January 2, 1997).

Prior to the use of motorized fire apparatus, the aide's additional duties included maintaining the chief's "buggy," caring for the horse, assisting with administrative details around the fire house, driving the chief to fires, and attending to the horse and buggy once on the scene (J. Ottoson, personal communication, October 9, 1996). At the turn of this century, motorized apparatus came into vogue, and it became the aide's responsibility to operate and maintain the chief's vehicle (J. Ottoson, personal communication, October 9, 1996).

When radios replaced telegraph fire alarm systems as the primary means of a fire chief communicating with the dispatch office, the role of aide underwent its second major change. Radios began appearing in fire apparatus in the 1940s and 1950s (Werner, 1974). Any vehicle



equipped with a radio became a point of communications for the chief or the aide to directly contact the dispatch office, with much greater efficiency than by using the telegraph box.

The availability of radios in apparatus freed aides from having to travel any great distance from a fire scene in order to communicate with the dispatch office. Aides were therefore able to assume additional operational roles on the fireground, including assisting the chief with the organization of the scene, relaying messages from the chief to various company officers, and performing reconnaissance to check on the progress of companies and the fire (J. McDonald, personal communication, January 2, 1997).

The most dramatic change in the chief's aide position came in the 1960s and 1970s, when portable radios entered the fire service. Prior to the use of portable radios, the traditional "command position" for the chief in charge of a fire that was being fought offensively, was inside the building, along side the companies he was directing (J. McDonald, personal communication, January 2, 1997). Communications between the chief and various company officers were usually conducted face-to-face. During the fire, the aide typically would receive instructions from the chief, and exit the building to request additional equipment or direct incoming units (J. McDonald, personal communication, January 2, 1997). While on the outside of the building, the aide would also watch for any conditions that the chief would not be able to see from his vantage point, such as signs of structural collapse, fire extension, water supply problems, etc. (J. McDonald, personal communication, January 2, 1997).

When portable radios were issued to all officers, fire chiefs could coordinate fireground operations to an extent never before possible. The chief no longer needed to be inside the building in order to facilitate communications with company officers. The preferred command position switched from inside the building, to outside. This change placed the chief in a much better position to direct incoming units, and personally observe rapidly changing fire conditions (J. McDonald, personal communication, January 2, 1997; P.A. Wentworth, personal communication, January 2, 1997).

As a result of portable radios entering the fire service, the aides' role changed significantly. No longer relegated primarily to "messenger" duties, aides were now free to an even greater extent to assist the chief with command and control of the incident (P.A. Wentworth, personal communication, January 2, 1997). What emerged was a new role for the aide: assisting the chief in the management of the incident (J. McDonald, personal communication, January 2, 1997).

The transition of aide from messenger to command assistant occurred amidst significant financial constraints on local governments during the late 1960s and early 1970s, particularly in larger cities (National Commission on Fire Prevention and Control [NCFPC], 1973). Many metropolitan fire departments were downsizing, resulting in reduced staffing (NCFPC, 1973). The late 1960s and early 1970s also saw an unprecedented increase in the number of vacant buildings, building fires, and arson for profit rings in most urban areas (NCFPC, 1973).

The arrival of the 1980s saw the fire service undergoing a dramatic paradigm shift away from accepting firefighter deaths and injuries as inevitable, toward an increased emphasis on firefighter safety (Teele, 1993). The single most prominent symbol of the "safety movement" was the adoption of National Fire Protection Association (NFPA) Standard Number 1500 in 1987, that addressed firefighter safety and health in a comprehensive way.

Among the many changes ushered in by the safety movement has been the widespread adoption of Incident Command Systems, firefighter accountability systems, and enhanced radio communications systems, all of which have served to improve the ability of an IC to "manage" an emergency incident (P.A. Wentworth, personal communication, January 2, 1997). However, these improvements have also served to place additional burdens upon an IC, burdens that tend to distract the IC from his or her primary responsibility of supervising, directing, and coordinating strategic and tactical operations ("Citations," 1995; Routley, 1995).

## **City of Providence**

The City of Providence is the capitol of the state of Rhode Island, and the economic, cultural, and governmental center for the area (Polk & Co., 1993). Covering an area of approximately 20.5 square miles, Providence has a resident population of 160,000 that expands to over 300,000 during the typical workday (A. Quintero, personal communication, January 5, 1997). Providence is a traditional northeast city with a heavy fire load of closely spaced wood-frame buildings, numerous mill complexes dating back to the 1800s, and a high population density (Conley & Campbell, 1985). Like many older northeast cities, Providence also has a significant vacant building problem, the result of a shifting population (Conley & Campbell, 1985).

## **Providence Fire Department**

The Providence Fire Department has been a paid, professional department since 1854 (Conley & Campbell, 1985). At one time the department operated 24 engine companies and 13 ladder companies organized into four fire districts, or battalions (Conley & Campbell, 1985; R.G. Vernon, personal communication, December 14, 1996). Since the early 1970s, the Providence Fire Department has operated 15 engine companies and 8 ladder companies, divided into three fire districts. The First District was supervised by a Deputy Assistant Chief who also served as shift commander. The Second and Third Districts were supervised by Battalion Chiefs. Through the 1970s and early 1980s, the department operated three advanced life support rescue squads (ambulances). In 1988, two additional rescue squads were added, bringing the total to five.

The Department has had a long tradition of providing aides for Battalion and Deputy Assistant Chiefs, dating back to at least the late 1800s and early 1900s (Weekes, 1916). In 1988, the aides positions were eliminated from the "minimum manning" provision of the collective bargaining agreement during the course of a protracted arbitration that was settled on the eve of a decision being rendered (G. Farrell, personal communication, January 4, 1997). In order to

provide personnel to staff two new rescue squads, the City and the union agreed that the three aides positions would be filled only if staffing permitted, without the need for overtime. The result was that, de-facto, the positions were eliminated because due to personnel shortages during the intervening years, overtime would have been necessary to fill the aides positions for nearly every shift (P.A. Wentworth, personal communication, January 2, 1997).

In 1992, the aides positions were reinstated as full-time positions after a staffing study concluded that increased staffing had led to a dramatic decrease in injury associated costs (Varone, 1994). The City and the firefighters union agreed that the aides positions would be reinstated by using some of the additional staffing that the study mandated (Frank, 1993).

This paper was prepared to satisfy the applied research requirements associated with the *Executive Leadership* course at the National Fire Academy. This research relates to the evaluation unit of the *Executive Leadership* course by analyzing complex situations and developing strategies designed to resolve conflicts and affect the ultimate outcome in a positive way.

The results of this research are of great significance to the Providence Fire Department, since a decision to retain or eliminate the chief's aides positions must be made during the course of the 1995-1996, and 1996-1997 contract negotiations. This research provides the leadership of the Providence Fire Department and the City of Providence with facts and information that will assist them in deciding whether to retain or eliminate the chief's aide positions. Other fire departments may also find this research significant as they struggle with the issue of the need for chief's aides in light of tight fiscal budgets.

## **LITERATURE REVIEW**

The literature review began with a review of applicable standards and laws that addressed chief's aides, as well as standards and laws that addressed the responsibilities placed upon ICs operating at emergency scenes. NFPA Standard Number 1201, entitled "Standard for Developing Fire Protection Services for the Public," 1994 edition, addressed the basic requirements and recommendations for the creation and establishment of a municipal fire department. Chapter 5-6.3 of NFPA 1201 stated: "Supervisory chief officers shall be available to command the fire companies or response group at each fire or other emergency scene. Provision shall be made for chief officers to designate aides for support in managing an incident" (NFPA 1201, 1994, p. 7).

The appendix to Chapter 5-6.3 of NFPA 1201, went on to describe the role of chief's aide as follows:

The function of the aide is to provide direct support to the command officer in managing the incident. These functions might include managing and recording information, operating communications equipment, making observations and reporting on conditions, transmitting orders, and providing other forms of assistance to the command officer. In some fire departments, the duties of an aide

might include assisting with administrative functions and maintaining and operating the command vehicle (NFPA 1201, 1994, p. 27).

Chapter 8-9.1 of NFPA 1201 required that specialized and advanced training be provided for personnel in the department that need specialized skills. The appendix to Chapter 8-9.1 stated that chief's aides were one group that warranted such specialized training.

NFPA Standard Number 1500, entitled "Standard on Fire Department Occupational Safety & Health Program," 1992 edition, addressed operations, staffing, and the responsibilities of ICs in Chapter 6. Chapter 6-1.2 mandated the use of an incident command/management system at all emergency incidents. Chapter 6-1.4 stated: "At an emergency incident, the incident commander shall establish an organization with sufficient supervisory personnel to control the position and function of all members operating at the fire scene and to ensure that safety requirements are satisfied" (NFPA 1500, 1992, p. 20).

Chapter 6-1.5 of NFPA 1500 stated that:

At an emergency incident, the incident commander shall have the responsibility to:

- a. Assume and confirm command and take an effective command position;
- b. Perform situation evaluation that includes risk assessment;
- c. Initiate, maintain, and control incident communications;
- d. Develop an overall strategy and attack plan and assign units to operations;
- e. Develop an effective incident organization by managing resources, maintaining an effective span of control, and maintaining direct supervision over the entire incident by creating geographical and functional sectors;
- f. Review, evaluate, and revise the attack plan as required;
- g. Continue, transfer, and terminate command, (NFPA 1500, 1992, p. 20).

Chapter 6-3 of NFPA 1500 required the use of a personnel accountability system at emergency incidents, and placed responsibility for tracking the location, function, and condition of all personnel on the scene, on the IC. Chapter 6-3.3 mandated that ICs "initiate an accountability and inventory worksheet at the very beginning of operations and shall maintain that system throughout operations" (NFPA 1500, 1992, p. 21).

Chapter 6-4.1 of NFPA 1500 provided a general statement that "The fire department shall provide an adequate number of personnel to safely conduct emergency scene operations" (NFPA 1500, 1992, p. 21). While the appendix to Chapter 6-4.1 made specific recommendations for the staffing of engine and ladder companies, it was otherwise silent in regards to the need for chief's aides.

NFPA 1561, entitled "Standard for Fire Department Incident Management System," 1995 edition, placed a number of responsibilities upon the IC, including the establishment of an "effective" command structure; establishing supervisory assignments based upon an accepted span of control principles; implementing and maintaining a personnel accountability system that includes the ability to track the location, function, and condition of each member operating at the

scene; incorporating basic risk management practices into the operational decision making process; determining overall strategy; summoning and assigning adequate resources; evaluating operational progress and changing strategy as needed; ensuring that sufficient personnel are available on scene for the prompt rescue of members should the need arise; and the ability to effectively communicate with various components of the command structure (NFPA 1561, 1995, p. 8). However, NFPA 1561 was silent as to the need for chief's aides.

As part of the literature review, the Occupational Safety and Health Administration's (OSHA) Fire Brigade Standard was examined for provisions relating to the need for aides to be provided to command level officers (29 CFR 1910.156, 1996). The OSHA Fire Brigade Standard made no mention of aides for command level officers.

NFPA 1201, 1500, and 1561, as well as the OSHA Fire Brigade Standard, influenced this research by providing a framework of nationally recognized standards that addressed operational recommendations and procedures for fire departments. The NFPA standards in particular, evidenced the significant responsibilities placed upon an IC at the scene of an emergency, highlighting the complexity and magnitude of the command level officer's job in the 1990s.

In 1973, Gage-Babcock & Associates (Gage-Babcock) was engaged to conduct a management study of the Providence Fire Department. The result was a comprehensive report that generated a number of recommendations, including the elimination of four engine companies and two ladder companies, the closing of three fire stations, the construction of several new facilities, and significant personnel changes.

In 1987, Gage-Babcock was again engaged to conduct a management study of the Providence Fire Department, and again made numerous recommendations regarding personnel and staffing. Among the recommendations made was that the City should continue to ensure that at least 15 personnel were assigned on all first alarm responses, irrespective of whether companies were staffed with three personnel or four. Gage-Babcock also recommended that the City develop a comprehensive master plan that would include reducing the number of fire stations and companies.

The two Gage-Babcock reports influenced this research more for what they did not say, than for what they actually said. Despite the fact that Deputy and Battalion Chiefs in Providence were assigned aides in 1973 and 1987, two comprehensive management studies that specifically addressed recommended staffing levels with an eye toward cost-cutting, remained silent on the issue of eliminating chief's aides.

In 1989, Kotowicz researched the need for chief's aides in the Chicago Fire Department. At the time, the City of Chicago was seeking to eliminate the aides positions for financial reasons. Kotowicz noted that "chiefs aids [sic] seem to be a favorite target for efficiency experts and management consultants" (Kotowicz, 1989, p. 34). He recognized that the need for chief's aides was generally a function of incident complexity, and that urban areas presented fire departments with numerous complex situations, much more so than was the case with fire departments providing coverage to suburban or rural areas.

Kotowicz concluded that aides perform three critical functions that serve to improve the operational efficiency of fire departments, resulting in safer operations for firefighters and the public. The three critical functions were the driver, the fireground communications facilitator, and the fire scene coordinator. Kotowicz went on to note a laundry list of less critical roles played by aides, including the upkeep of tools, equipment, and the chief's vehicle; the upkeep of reference materials maintained on the chief's vehicle; clerical duties at battalion headquarters; administrative duties in the battalion; providing a partner for the chief in the event he must enter a burning structure or other hazardous area so as not to violate the "buddy system"; and liaison with various parties at an emergency scene (Kotowicz, 1989, p. 39).

Kotowicz likened the elimination of chief's aides to the removal of a shortstop from a baseball team. The damage done to the efficiency of a baseball team without a shortstop would be far greater than merely an uncovered position through which a ball or two may go for a hit during the course of a game. Overall, the efficiency of the entire team would suffer in numerous, almost incalculable ways (Kotowicz, 1989, p. 43).

In 1989, the Houston Professional Firefighters Association (Houston) issued a report on the role of aides in the Houston Fire Department. The report catalogued a considerable list of duties and responsibilities that fell upon the aide. Like Kotowicz, Houston cited three specific duties to be of principal importance, namely, operating the chief's vehicle, facilitating fire scene communications, and assisting in the coordination/management of the fire scene. Houston concluded that the aides positions were critical to ensure firefighter safety and efficient operations (Houston, 1989, p. 21).

In 1996, Matthew studied the role of chief's aides in the Honolulu Fire Department. Matthew looked at the need for aides in the 1990s, as well as possible alternatives that may be available. Matthew criticized the proposition that an IC could enlist an "aide" from among on scene personnel, noting that the role played by an aide depended upon the ability of the chief and the aide to communicate effectively in brief, hectic moments. The lack of specific aide training and experience, as well as unfamiliarity between the aide and chief, could all contribute to communication breakdowns between a chief and an unfamiliar person who was assigned to act as an aide on an ad hoc basis. Matthew also pointed out that taking a member away from a company that was already minimally staffed would compromise the safety and effectiveness of that unit.

Matthew concluded that chief's aides perform a critical function in metropolitan cities in the 1990s. Matthew further concluded that the job of chief's aide was not a job for a firefighter, but rather should be filled by a ranking officer, preferably at least of captain's rank (Matthew, 1996, p. 41).

In 1996, Stapleton wrote about the importance of chief's aides. Stapleton stressed the importance of having an experienced member serve as aide, particularly one who had a background in the building trades. He also concluded that aides are an essential tool for an incident commander in a major city.

Carter and Rausch (1989), briefly discussed the role of chief's aides in their book on fire service management. Carter and Rausch concluded that aides should be experienced officers or firefighters, and are "essential to efficient management and operations" (Carter & Rausch, 1989, p. 149).

Kotowicz, Houston, Matthew, Stapleton, and Carter and Rausch influenced this research by examining the role played by chief's aides in various fire departments, and providing solid, rational arguments in favor of retaining the aides positions. Kotowicz, Houston, and Matthew also acknowledged that recent safety advances have served to make the task of commanding an incident so much more complex than it had been in years past, that aides are even more indispensable in the 1990s, than in years past.

In 1995, Routley investigated a warehouse fire in Seattle, Washington, that took the lives of four firefighters on January 5, 1995. Among the factors that Routley cited as contributing to the firefighters' deaths was the fact that command level officers did not have aides or staff support personnel to allow them to "ensure that the basic [command] responsibilities are not abandoned in favor of functions that could effectively be performed by support staff..." (Routley, 1995, p. 42), such as maintaining accountability systems and monitoring multiple radio channels.

Routley recognized that:

As incident command, accountability and risk management have become more complex and structured, the role of Command Officers has changed in many fire departments. The added responsibilities, which are important, may restrict their ability to actually supervise, direct and coordinate tactical operations, particularly when they are not provided with aides or staff support personnel (Routley, 1995, p. 42).

Routley influenced this research by providing a documented instance of how new responsibilities placed upon ICs have contributed to the increased complexity of the command level officer's job, necessitating the assignment of aides. Routley also established a clear nexus between the assignment of an aide and firefighter safety.

## **PROCEDURES**

The research procedure used in preparing this paper began with a literature review at the Learning Resource Center at the National Emergency Training Center in October of 1996. Additional literature reviews were conducted at the Providence Public Library in Providence, Rhode Island, the Providence College Library in Providence, Rhode Island, and the author's personal library between October, 1996 and January, 1997. Also, the International Association of Fire Fighters (IAFF), AFL-CIO, through Local 799, Providence Firefighters Association, provided an informational package on the subject of chief's aides.

The literature review focused first upon the historical origins of the chief's aide position. Current literature was reviewed to gain a better perspective about the role of chief's aide in the 1990s in other fire departments.

Interviews were conducted with John Ottoson, a research specialist for the United States Fire Administration in Emmitsburg, Maryland, on October 9, 1996; Raymond G. Vernon, a Captain on the Providence Fire Department and a noted fire department historian, on December 14, 1996; Paul A. Wentworth, a Deputy Assistant Chief with the Providence Fire Department, and the Department's leading authority on incident command, on January 2, 1997; John McDonald, a retired Battalion Chief from the Providence Fire Department, whose career began in 1946 and who served as a chief's aide at a point prior to the department having radios in apparatus, on January 2, 1997; George Farrell, President of Providence Firefighters Local 799, on January 4, 1997; and Anne Quinterno, a former Providence mayoral aide, on January 5, 1997.

A survey instrument, which was titled the "Aides for Command Level Officers Survey," was developed to gather information about the practices and experience of other fire departments regarding aides (see Appendix A). The information sought included whether the department presently provided aides to command level officers; whether the department had ever provided aides; if aides were not provided, whether formalized procedures were established to provide the IC with assistance in managing incidents; and if aides had been eliminated, had they ever been reinstated and the reasons why they were reinstated. Surveys were cross-referenced by demographic information provided about each jurisdiction.

The survey instrument was field tested on a small group of chief officers from the Rhode Island Association of Fire Chiefs, and improvements were made prior to actual distribution. The survey was given to 41 students in the *Executive Leadership* and *Executive Development* classes in residence at the National Fire Academy between October 7 and October 18, 1996. It was also mailed out to fire departments listed on the National Fire Academy's Metropolitan Fire Department list, and fire departments in the metropolitan Providence, Rhode Island, and Boston, Massachusetts, areas. A total of 214 surveys were handed or mailed out. One-hundred sixty-one surveys (75.2 percent) were completed and returned, including responses from all 50 States. Further demographic information about the responding departments is provided in Appendix B.

The results of the survey were entered into a relational database (Paradox 7.0 for Windows) and analyzed. The results were tabulated and entered into a computerized spreadsheet (Quattro Pro 7.0 for Windows) and used to help answer the research questions.

## **Limitations**

This research project was limited by a number of factors, not the least of which was the fact that the core subject matter (i.e., the need for, and the effectiveness of, chief's aides), defies objective measurement. The need for aides is indeed a very subjective topic, one that resists being quantified. Even staffing levels for engine and ladder companies can be studied by looking at various objective measures, such as the time to complete certain evolutions, injury rates, or perhaps physiological data (heart rate, blood pressure, body temperature, etc.). Such is not the case with chief's aides. The intellectual nature of the IC's role makes it difficult, if not impossible, for a third party to objectively measure how the presence of an aide improves, facilitates, or assists that process.



The "Aides for Command Level Officers Survey" was given to a nonrandom population that was numerically biased in favor of larger, fully paid, metropolitan fire departments. In fact, the survey did not include responses from any fully volunteer fire departments. The results, therefore, should not be construed as being statistically representative of the fire service of the United States, the northeast, or Rhode Island.

The author was limited in his research by the lack of information and documentation about chief's aides. Very few articles and no books were found that addressed the role and function of chief's aides in a comprehensive manner. A search at the Learning Resource Center at the National Emergency Training Center located only one research paper that addressed chief's aides. Even more troubling was the fact that no books or articles were found that took the position that aides were not necessary, to provide a balanced perspective.

Another limitation of this research was that the survey instrument proved to be flawed. In hindsight, question number 6 (a) was ambiguous. It asked whether the responder's department had a procedure by which a command level officer could obtain administrative support at an incident. An affirmative response required a description of the procedure that the department used. The purpose of the question was to identify fire departments that had established a specific procedure for providing assistance to the IC as an alternative to providing aides.

The majority of survey responders answered "yes" to question 6 (a), but went on to describe informal practices, as opposed to specific, standardized, or written procedures. These informal practices (such as "grab anyone available," "enlist an aide from available personnel on scene if possible"), did not constitute a specific procedure that the department had undertaken in recognition of the need to provide the IC with administrative support. Therefore, responders that answered "yes" to question 6 (a), but failed to describe a specific procedure, were treated as the functional equivalent of a "no" answer. The survey form should have been more precise in asking if a formalized, written procedure existed.

## Definitions

**Buddy System.** The rule that a firefighter should not enter or remain in a dangerous area, including a structure that is on fire, alone.

**Chief's Aide.** A firefighter or officer assigned on a full-time basis to assist a chief officer with administrative and emergency scene responsibilities.

**Command level line officer.** The person who is in overall command of a working structure fire once all responding companies on the first alarm have arrived on scene. Included in this definition are any other line officers who are senior in rank, who may later assume command of such an incident, should the incident continue to expand. In most fire departments this would refer to battalion chiefs, district chiefs, and deputy chiefs assigned to line positions in the organization.

**Incident Commander.** The individual who is in overall command of an incident pursuant to the local jurisdiction's Incident Command System (ICS).

**Incident Command System.** An organized system of roles, responsibilities, and procedures used to manage emergency incidents. As used in this report, the terms "incident command system" and "incident management system" are synonymous.

## **RESULTS**

### **1. Are there any nationally recognized standards, laws or recommendations that pertain to aides for command level line officers?**

The literature review found very little in the way of standards or laws that addressed aides for command level officers. NFPA Standard Number 1201, 1994 Edition, required fire departments to make provisions for chief officers in command of emergency incidents, to be able to designate aides. The appendix to NFPA 1201 defined the roles typically played by aides, and recommended that aides be provided with specialized and/or advanced training. NFPA 1500 (1992), and NFPA 1561 (1995), as well as the OSHA Fire Brigade Standard (29 CFR 1910.156, 1996), made no mention of the need for chief's aides.

Kotowicz (1989), who researched the need for chief's aides in Chicago, recommended that chief officers be provided with aides, particularly in metropolitan areas, for reasons of "the efficiency of the department and the safety of firefighters" (Kotowicz, 1989, p. 34). Houston (1989) reached a similar conclusion regarding aides, stating "It is a serious fallacy to assume that the chief's aide performs a superfluous role in any big city fire department" (Houston, 1989, p. 2).

Stapleton (1996) wrote that chief's aides are an essential tool in a major city, and that the individual selected to serve as an aide needs to be "extremely experienced" (Stapleton, 1996, p. 8). Carter and Rausch (1989) similarly concluded that aides are an essential position that should be filled by experienced officers or firefighters.

Matthew (1996) concluded that chief's aides fulfill a necessary and valuable role in the modern fire service. Matthew further concluded that the magnitude of the responsibilities warranted the assignment of an officer as aide, as opposed to a senior firefighter.

Thus, there are no standards or laws that specifically require fire departments to assign aides to command level officers on a full-time basis. NFPA 1201, the only nationally recognized standard or law that addressed aides for command level officers, requires merely that chief officers have the ability to assign an aide when needed. However, many fire service authorities recommend that aides be provided to command level officers on a full-time basis, particularly in urban areas.

### **2. How many fire departments in the United States provide aides for their command level line officers?**

The results of the "Aides for Command Level Line Officers Survey" showed that 23 of the 161 fire departments that responded (14.3 percent), provided aides for all of their command level officers (see Table 1). All 23 were fully paid fire departments providing protection to urban areas with populations of at least 100,000 (see Table 2). All 23 (100 percent) reported that they use an ICS, and 16 of the 23 (69.6 percent) use an accountability system (see Table 3).

**Table 1**  
**Fire Departments that Provide Aides By Type of Department, Area Served and Region**

<b>FIRE DEPARTMENTS THAT PROVIDE AIDES TO:</b>	<b>#</b>	<b>Paid</b>	<b>Comb</b>	<b>Vol</b>	<b>Urban</b>	<b>Suburb</b>	<b>Rural</b>	<b>NE</b>	<b>NC</b>	<b>S</b>	<b>W</b>
all Command Level Officers	23	23	0	0	23	0	0	8	3	7	5
based on rank	7	7	0	0	7	0	0	0	2	4	1
based upon activity level	6	6	0	0	6	0	0	1	2	2	1
when staffing permits	5	4	1	0	3	2	0	2	2	0	1
under unusual conditions	19	14	5	9	14	5	0	1	2	8	8
Do not provide aides	101	82	19	0	72	24	5	12	22	39	28

**Table 2**  
**Population Served**

<b>FIRE DEPARTMENTS THAT PROVIDE AIDES:</b>	<b>under 25,000</b>	<b>25,000 – 99,999</b>	<b>100,000 – 249,999</b>	<b>250,000 – 499,999</b>	<b>over 500,000</b>
to all Command Level Officers	0	1	7	5	10
based on rank	0	0	0	1	6
based upon activity level	0	2	1	2	1
when staffing permits	1	2	2	0	0
under unusual conditions	1	1	5	7	5
Do not provide aides	7	25	27	23	19

**Table 3**  
**Fire Departments That Eliminated and/or Reinstated Aides**

<b>FIRE DEPARTMENTS THAT PROVIDE AIDES:</b>	<b>Total FDs</b>	<b>Use ICS</b>	<b>Accountability System</b>	<b>Ever had Aides</b>	<b>Eliminated Aides</b>	<b>Elimin. due to Financial</b>	<b>Reinstated Aides</b>	<b>Reinstated Aides needed</b>
to all Command Level Officers	23	23	16	23	8	8	8	8
based on rank	7	7	4	7	7	7	1	0
based upon activity level	6	6	5	6	1	1	1	1
when staffing permits	5	4	3	2	2	2	2	1
under unusual conditions	19	19	14	8	8	6	0	0
Do not provide aides	101	99	74	42	42	35	3	3
<b>TOTAL</b>	<b>161</b>	<b>158</b>	<b>116</b>	<b>88</b>	<b>68</b>	<b>59</b>	<b>15</b>	<b>13</b>

Of the 23 fire departments that reported that they provide aides to all command level officers, 8 (34.8 percent) have eliminated aides at one time or another, only to reinstate them. All eight fire departments reinstating aides cited the fact that the necessity of aides was realized after the aides were eliminated, as the reason aides were reinstated.

The demographics of the 23 fire departments that provide aides to all command level officers yielded some interesting results. Out of a total of 24 fire departments responding to the survey from the northeast, 8 (33.3 percent) provided aides to all command level officers. Of 33 fire departments reporting from the north central states, only 3 (9.1 percent) provided aides to all command level officers, while 7 out of 60 from the south (11.7 percent), and 5 out of 43 (11.6 percent) from the west did so.

In addition to the 23 fire departments who provided aides to all command level officers, seven more fire departments provided aides to certain chief officers based upon rank. Five of the 7 fire departments provided aides to battalion and district level chiefs (the lower ranking line officers) but not to deputy chiefs, based upon the fact that the higher ranking deputy chiefs are primarily concerned with administrative and personnel matters, as opposed to operations. The other two departments provided aides to the deputy chiefs, but not the battalion chiefs.

All 7 departments that assign aides based upon rank, were fully paid, urban fire departments, serving populations greater than 250,000. Six of the 7 (85.7 percent) were major metropolitan fire departments serving populations in excess of 500,000. All seven departments reported that at one time they provided aides for all command level officers, but eliminated the positions for financial reasons.

Six additional fire departments reported that they provided aides to some chiefs based upon activity level. All six departments were fully paid, urban fire departments. Five more fire departments reported that they provide aides when staffing permits, and 19 reported that they provide aides during unusual conditions, such as civil unrest, severe weather, major disasters, etc. Thus, a grand total of 60 fire departments (37.3 percent) reported that they provide aides to command level officers in some manner.

### **3. How many fire departments that provided aides to command level line officers in the past, have eliminated the aide's position?**

Of the 161 fire departments that responded to the survey, 88 (54.7 percent) indicated that at one time, they provided aides for command level officers (see Table 3). Of the 88 fire departments that provided aides at one time, 68 (77.3 percent) reported that their aides had been eliminated at some point in their history. Of the 68, 59 (86.8 percent) cited financial considerations as the primary reason for the elimination of the aides positions. Six departments (8.8 percent), stated that the aides were eliminated because they were not necessary. Three (4.4 percent) cited reassignment of personnel to staff other apparatus as the reason aides were eliminated. Table 4 shows the years during which responding departments eliminated their aides.

Of the 68 fire departments that eliminated aides, 15 (22.1 percent) reported that they reinstated the aides. Of the 15 fire departments that reinstated their aides, 13 (86.7 percent) cited the fact that the need for aides was recognized after the aides were eliminated (see Table 3). One department reported that aides were reinstated after a deputy chief was killed in a vehicle accident while responding to a fire. Two fire departments cited the fact that the financial condition of their jurisdiction improved as the reason the aides were reinstated.

**Table 4**  
**Years that Fire Department Reported Their Aides Were Eliminated**

<b>Years</b>	<b>No. of FDs</b>
Pre-1970	3
1970	2
1971	0
1972	1
1973	2
1974	0
1975	8
1976	1
1977	3
1978	3
1979	3
1980	5
1981	0
1982	1
1983	1
1984	2
1985	4
1986	3
1987	2
1988	4
1989	1
1990	5
1991	1
1992	1
1993	2
1994	3
1995	0
1996	1

**4. In fire departments that assign aides to command level line officers, what are the responsibilities assigned to the aide?**

The specific role played by chief's aides varies greatly depending upon factors such as the jurisdiction involved, the type of incident, the complexity of the incident, and the technology available to the department (P.A. Wentworth, personal communication, January 2, 1997). However, most of the authorities cited in this research agreed on several distinct roles played by aides. These included maintaining the chief officer's vehicle and equipment; driving the chief to emergencies and on administrative matters; assisting with emergency scene communications; performing reconnaissance and reporting back to the chief on conditions observed; relaying orders to companies and incoming units; maintaining incident documentation such as command status boards, tactical worksheets, and personnel accountability and inventory worksheets; gathering incident information for report/documentation purposes; liaison with police, utility companies, and outside agencies; accessing pre-fire data information; report preparation; and assisting with the management of the chief's office, administratively (see Table 5).

The Springfield, Illinois, Fire Department has gone so far as to designate the battalion chief's aide as an "on-site" safety officer as part of the department's health and safety program (Steil & Melton, 1995). The health and safety program listed 11 specific responsibilities of the aide, including promoting firefighter safety among fellow employees; directing health and safety-related concerns to the safety officer or safety committee; maintaining accountability of personnel at incident scenes; ensuring safety regulations pertaining to personal alert safety system (PASS) devices and self-contained breathing apparatus (SCBA) are followed; observing the emergency scene and alerting the IC to any unsafe acts or conditions; performing air monitoring and sampling functions at hazardous materials incidents, confined space rescue incidents, and during overhaul at structure fires; overseeing the establishment of a rehabilitation sector when necessary; monitoring fellow firefighters, their apparatus and equipment for problems; minimizing or eliminating hazardous conditions at emergency scenes, and otherwise assisting the battalion chief (Steil & Melton, 1995, p. 12).



**Table 5**  
**Emergency Scene Tasks Performed by Aides**

	Driving Apparatus	Assist with Communication	Reconnaissance Report conditions	Relay orders	Maintain incident documentation*	Track companies & personnel	Act as Safety Officer	Gather info for report/ press	Liaison	Access prefire data	Secure utilities
NFPA 1201	Y	Y	Y	Y				Y			
Kotowicz	Y	Y	Y	Y				Y	Y		
Houston	Y	Y	Y	Y	Y	Y		Y	Y	Y	
Stapleton	Y		Y	Y							
Matthew	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Carter & Rausch	Y	Y	Y	Y					Y		
Wentworth	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y
McDonald	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y

\*Includes maintaining incident status board, tactical worksheets, personnel accountability and inventory worksheet.

**Administrative Tasks Performed by Aides**

	Maintaining Apparatus & Equipment	Assist with daily staffing adjustments	Daily scheduling, e.g., training, inspections	Time reports payroll	Messenger Pick up/deliver equipment	Typing/Preparing reports	Office Management
NFPA 1201	Y						
Kotowicz	Y					Y	
Houston	Y				Y	Y	
Stapleton							Y
Matthew	Y	Y	Y	Y	Y	Y	
Carter & Rausch						Y	Y
Wentworth	Y	Y	Y	Y	Y	Y	Y
McDonald	Y						Y



**5. In fire departments that do not assign aides to command level line officers, are there any alternative procedures intended to assist the IC with incident management?**

According to the results of the survey, of the 138 fire departments that do not provide aides for all command level officers, 103 indicated that they have a procedure by which command level officers can obtain administrative assistance at emergency scenes (see Table 6). However, when the survey responders attempted to describe their "procedure," it became obvious that the vast majority of these departments (89 of 103, or 86.4 percent) had absolutely no system at all. Rather, the "procedure" they used was merely to allow the IC to recruit an aide from the personnel available on the scene, or recall off-duty personnel.

In fact, out of the 138 fire departments that said they do not provide aides to all command level officers, only 14 departments (10.1 percent) were able to describe a specific procedure that their department used to provide assistance to an IC in managing an incident (see Table 6). These procedures included the dispatch of a mobile command-post vehicle with on-duty staff support personnel assigned; the response of on-duty staff officers to fires to assist the IC; and the assignment of paramedic, squad, or other units with specific instructions and SOPs to assist the IC.

**Table 6**  
**Alternative Procedures used by Fire Departments that do not Provide Aides**

Departments that do not provide aides to all command level offices	138
Departments that claim they have a "procedure" to assist IC	103
Depts that say they do, but do not have a "procedure"	89
Recruit on-scene personnel	58
Call-back off-duty personnel	17
Both recruit & call-back	14
Departments that admit they have no "procedure"	21
TOTAL DEPARTMENTS THAT DO NOT HAVE A PROCEDURE	124
Departments that actually describe a "procedure"	14
Dispatch a staffed command post vehicle with aides	5
Dispatch an on-duty staff officer to assist IC	4
Use a squad company	2
Use a paramedic unit	2
Use a specially designated company	1

An example of a department with such an SOP was the Pittsburgh, Pennsylvania, Bureau of Fire, which designated Engine Company 39 to respond to all working fires as a "Safety Unit" (Pittsburgh, 1995). The procedure required the company officer to perform specific safety officer related duties, while the remainder of the crew reported to the IC to serve as command aides. One firefighter/aide would automatically place the command board into operation, ascertain each unit's position and activities, monitor radio traffic, and keep the IC informed. Another firefighter/aide would coordinate with the air supply unit and assist with air bottle recharging. Any additional firefighters/aides would carry out assignments as required by the IC.

Thus, some fire departments that do not provide chief's aides on a full-time basis, have developed creative alternatives to provide ICs with on-scene administrative support.

## **DISCUSSION**

The evolution of the role of "chief's aide" has, not surprisingly, closely paralleled the evolution of the position we now refer to as "Incident Commander." As the technology and science of firefighting have advanced over the years, the role of the command level officer has changed dramatically. Without recognition of this fact, it is impossible to put the present role of "chief's aide" into proper perspective.

In the earliest days of the fire service in this country, the fire chief in command at a fire scene had very limited control over the firefighting forces that could be assembled. Prior to the 1850s, the chief had no way of communicating with the dispatch office or contacting incoming companies to give instructions. Direct face-to-face communication was the only method of communications possible, enhanced only slightly by megaphones or trumpets. At the time, the principle role of an aide was to serve as a messenger, who similarly was limited to communicating face-to-face.

When telegraph systems finally provided the fire chief with a means of remotely communicating with the dispatch office, it became the aide's responsibility to locate and operate the nearest fire alarm box. This arrangement allowed the chief to remain at the fire scene while the aide went back and forth between the scene and the alarm box. In Providence, as was often the case in many departments, the chief would typically remain inside the fire building during offensive operations, directly overseeing tactical efforts. Since the aide spent quite a bit of time on the exterior of the building handling various communication related chores, he also became the chief's eyes and ears outside the fire building.

The introduction of the radio to the fire service modified the aides' role somewhat, but it was the appearance of the portable radio, and the fundamental change in command and control that resulted, that dramatically changed the function of chief's aides. Portable radios allowed the chief to be positioned outside the fire building, yet remain in communications with companies operating inside. At the same time, the chief could communicate personally with the dispatch office and incoming units. In some respects, portable radios eliminated two of the roles historically associated with aides, namely: communicator with fire alarm, and outside observer.

Surprisingly, this observation passed unnoticed by all of the authorities found in the literature review.

While on the one hand, portable radios eliminated two of the more prominent roles that aides used to fill, new problems were created. The chief/IC went from struggling to be able to communicate effectively with the various parties he needed to speak with, to being able to communicate with so many people, he could easily be overwhelmed at routine emergencies by the sheer volume of radio messages (Varone, 1996).

Portable radios began appearing in the fire service in the late 1960s and early 1970s, just about the time that the activity levels of many urban fire departments, including Providence, were dramatically increasing (Conley & Campbell, 1985; NCFPC, 1973). The availability of portable radios, in conjunction with the increase in fire activity, led to a dramatic increase in the volume of radio traffic, prompting many fire departments to obtain additional radio frequencies and begin multichannel operations (Varone, 1996). The inherent problems associated with multichannel operations added further complexity to the job of IC, that was compounded even more by the additional communication tools of cellular telephones, fax transmissions, and mobile data terminals.

However, communications issues were but one facet of the increasing complexity that began confronting chiefs in the 1970s, and continued through the 1980s and 1990s. Adding to the complexity were "advances" in firefighter safety. The safety movement, typified by the adoption of NFPA 1500, dramatically increased the administrative burdens on ICs (Routley, 1995). The literature review disclosed that Incident Command Systems, accountability procedures, rapid intervention crews, and rehabilitation requirements, to name a few, have all served to make the job of IC in the 1990s infinitely more complex.

For example, consider the complexities involved in rotating and tracking crews at a "routine" structure fire in the 1990s, compared to years past. Prior to the 1970s, the use of self-contained breathing apparatus (SCBA) was considered optional in most fire departments, and crew rotations were essentially unnecessary since firefighters were expected to remain in a building fighting the fire until the fire was extinguished, or conditions forced them to withdraw (P.A. Wentworth, personal communication, January 2, 1997). In the 1980s, regulations mandating the wearing of SCBA at all structure fires came into vogue (Providence, 1981). In 1987 and again in 1992, NFPA 1500 mandated that SCBA be used, not just worn, at all structure fires, and required that fire departments enforce "mandatory mask" policies as part of a comprehensive respiratory protection program (Teele, 1993, p. 286). Therefore, crews operating in a fire building in the 1990s must be withdrawn before their air supply is depleted, or after roughly 15 to 20 minutes of active firefighting.

The withdrawal of a crew that is low on air has to be coordinated with the assignment of a fresh crew to relieve the exiting crew. It is the IC's responsibility to provide fresh crews in a timely manner, as well as document and account for the location of each member on the scene throughout the fire by maintaining an "accountability and inventory worksheet" (NFPA 1500, 1992, p. 21). This documenting and accountability function alone represents a significant increase in the level of complexity that ICs in the 1990s face. The paradox is that this increased

complexity has occurred against a backdrop of fire departments being expected to do more with less.

The literature review disclosed a surprising lack of standards and laws that addressed the need for chief's aides. In fact, the only standard or law that specifically mentioned aides for command level officers was NFPA 1201 (1994). Even NFPA 1201 stopped short of mandating that aides be assigned to chief officers on a full-time basis. It required that fire departments make specific provisions to ensure that command level officers have the ability to assign aides if and when needed. The language of NFPA 1201 would appear to leave the option to the fire department as to whether aides should be assigned on a full-time basis, or whether assignments could be made on-scene on an "as needed" basis.

The recommendations found during the literature review overwhelmingly pointed to the need for full-time aides, particularly in metropolitan areas. Kotowicz (1989), recognized that the need for aides is a function of incident complexity, and that politicians and some staff personnel have been led to believe that aides are not a necessity by the examination of other fire departments, particularly nonurban departments. While in some communities the fire department may be able to function without aides, urban areas pose significantly more complex problems, with more frequency, than do suburban or rural areas. Matthew (1996), Stapleton (1996), and Houston (1989) all expressed sentiments similar to Kotowicz, that urban, metropolitan areas are the areas most likely to present an IC with the type of complexity that warrants an aide being assigned to chief officers on a full-time basis.

Providence is a densely populated city, with a housing stock made up primarily of closely-spaced, three-story wood, balloon-frame tenements. There are a number of other factors that further tend to complicate incidents in Providence, including the presence of five major universities, seven major hospitals, two interstate highways, a sizeable downtown area, a considerably large work-day population, numerous high-rise buildings, an active port, and a large volume of hazardous chemicals used by area industry, not to mention the proximity of Narragansett Bay, a natural resource to which much of the rest of the State depends economically. All of these factors serve to add complexity to emergency incidents in the City of Providence, that are not faced by suburban fire departments.

The need for chief's aides in Providence is further supported by the Gage-Babcock reports of 1973 and 1987. Gage-Babcock thoroughly evaluated the Providence Fire Department on two separate occasions 14 years apart, and made numerous recommendations about how the City could streamline the fire department in order to save money. Despite the tenor of both reports, neither suggested in the slightest way that chief's aides could be dispensed with. If eliminating chiefs aides had been a prudent fiscal move, either or both of the Gage-Babcock reports would have recommended that the positions be eliminated.

Kotowicz's analogy of the elimination of chief's aides to the elimination of the shortstop from a baseball team could not be more accurate. The extent of problems associated with the elimination of a shortstop from a baseball team is apparent only to someone who understands the game of baseball. A spectator who does not understand the game may likely conclude that the shortstop merely fields balls hit between second base and third base, and therefore is the most

"expendable" player, a luxury from a bygone era. However, as most baseball fans would readily agree, far from being "expendable", the shortstop is probably "the" most important defensive player on the field.

Matthew's (1996) research suggested that the position of aide in the 1990s was so critical that it warranted more authority than just a firefighter's pay-grade. Matthew suggested that aides should be captains, or even junior-grade chief officers who are learning to be command level officers. Carter and Rausch (1989) also discussed the possibility of assigning officers as aides. Without exception, all of the authorities cited in the research stated that experience was an essential prerequisite for aides. Given the magnitude of the responsibility being placed upon aides in the 1990s, the concept of assigning officers as aides certainly merits serious consideration.

The results of the "Aides for Command Level Line Officers Survey" disclosed that fire departments that provide aides to command level line officers tend to be the larger, more metropolitan fire departments. Of 161 fire departments that responded to the survey, 23 (14.3 percent) assigned aides to their command level officers on a full-time basis. In addition to the 23 fire departments that assigned aides full-time, 7 more provided aides to some chief officers based upon rank, and 6 more provided aides based upon activity level. Thus, a total of 36 fire departments (22.4 percent) provided aides to at least some of their command level line officers on a full-time basis. All 36 were fully paid fire departments providing coverage to urban areas (see Table 1). None of the 36 provided service to areas described as suburban or rural, and 34 of the 36 (94.4 percent) protected communities with a population in excess of 100,000.

Of the 36 fire departments that served populations over 500,000, 10 (27.7 percent) provided aides for all command level officers, and 7 (19.4 percent) more provided aides based either upon rank or activity level (see Table 2). Thus 47.2 percent of fire departments protecting populations over 500,000, provided aides to some or all of their command level officers. For paid departments protecting populations of between 250,000 and 499,999, 8 of 32 (25.0 percent) provided aides either to all command level officers, or based upon rank or activity level, while 8 of 38 (21.0 percent) departments protecting 100,000 to 249,999 did so. In all, 33 of 106 (31.1 percent) departments providing protection to communities of 100,000 or more, provided aides, while just 3 of 31 (9.6 percent) of communities with a population of less than 100,000 provided aides. These findings are consistent with the conclusions of Matthew, Stapleton, Kotowicz and Houston, that incidents in urban, metropolitan areas tend to be more complex, and therefore urban fire departments are more in need of aides than suburban or rural departments.

The survey results also indicated that 88 of the 161 (54.7 percent) fire departments who responded to the survey, provided aides to their command level officers at one time or another during their history. Of these 88 fire departments, 68 eliminated aides at some point, with 59 (86.8 percent) citing financial considerations as the primary reason. In fact, only six fire departments (8.8 percent) reported that the reason aides were eliminated was because the positions were no longer necessary.

The elimination of aides for financial reasons appears to have been a nationwide trend affecting the fire service from 1970 through the present. Only 3 fire departments out of 68 (4.4 percent) reported eliminating their aides prior to 1970, while 65 of 68 (95.6 percent) did so between the years of 1970 and 1996 (see Table 4). Between 1975 and 1985, 31 out of 68 fire departments (45.6 percent) eliminated their aides. It is worth noting that this time frame (1975 to 1985) occurred shortly after portable radios entered the fire service in the late 1960s and early 1970s, but preceded the increased complexities that began to confront command level officers in the late 1980s and early 1990s. It is plausible that many fire department administrators were led to believe that aides were "expendable" due to the dramatic improvement in fireground communication brought about by portable radios, but they were unaware of the increased complexities in incident management that were on the horizon.

While only 15 of the 68 fire departments (22.1 percent) who eliminated aides reported that they reinstated their aides, 13 of the 15 (86.6 percent) cited the fact that the need for the aides was recognized after the aides were eliminated, as the principle reason for their reinstatement. One fire department reported on the survey that aides were reinstated shortly after a deputy chief was killed in an automobile accident while responding to a fire. Additional information about this incident was requested but not provided. Nevertheless, it would appear that the municipality involved believed in hindsight that the presence of an aide may have averted the tragedy.

The research into the duties of a chief's aide provided some interesting insights into the role played by aides in the 1990s. All of the authorities cited agreed upon a core of specific responsibilities that generally fall upon aides, including assisting with fireground communications, the tracking of fire companies, accountability, maintaining command status boards, driving and maintaining the chief's vehicle, and administrative/staff functions. However, a few of these responsibilities warrant further discussion.

Of all of the functions served by aides, none are more critical to firefighter safety and operational efficiency than the emergency scene duties. The specific duties of an aide at a specific incident will vary depending upon the type of incident, the technology available to the department, and the priorities of the IC at that given moment (P.A. Wentworth, personal communication, January 2, 1997). Obviously, an aide cannot fulfill all of the possible emergency scene administrative support functions at every incident. Each incident creates its own set of priorities that must be addressed as the circumstances unfold.

If the chief is having a face-to-face meeting with personnel on-scene, and is concerned about missing critical radio messages, the aide may be assigned to monitor the radio. If the chief is concerned about rapid fire extension, or perhaps the structural integrity of the building, then the aide may be assigned to observation and reconnaissance of a portion of the building that the chief cannot personally observe. As the incident escalates, and additional supervisory personnel arrive on scene to assume command, the aide's role may be to accompany the chief (as a sector officer) into the building so as not to violate the "buddy system" rule. The flexibility and adaptability of the aide's role is critical to its effectiveness. This flexibility is also an important reason why the chief must be familiar with, know the capabilities/limitations of, and trust the judgment of the person serving as aide.

Probably the role most closely associated with the position of chief's aide is the role of vehicle operator, so much so that the traditional name for the position of chief's aide was "chief's chauffeur" (Houston, 1989, p. 4). No doubt the term "chauffeur," as well as the visibility of the role of vehicle operator, contributed to the misunderstanding by politicians, the lay public, and even by misinformed members of the fire service, that driving the chief was the aide's most important function. According to John Ottoson of the United States Fire Administration, the very thought "of one able bodied firefighter driving another able bodied firefighter around" infuriates many budget minded politicians and citizens (personal communication, October 9, 1996). Nevertheless, as pointed out by Kotowicz (1989), the role of driver is a critical one. Kotowicz cited research from the United States Department of Transportation and the National Safety Council to show that the preoccupation of any vehicle operator, let alone a chief officer responding to an emergency, statistically increases the likelihood of an accident. Kotowicz further cited the need for "one-handed" driving while operating the siren, and communicating over the radio, as unsafe practices (Kotowicz, 1989, p. 40).

Providing an aide to drive the chief's vehicle allows the chief to start mentally focusing on managing the incident while en route, as well as to access prefire data information, research reference materials, prepare tactical worksheets and accountability documentation, obtain additional alarm information via cellular telephone, and respond promptly to radio transmissions. For fire departments with on-board computers in vehicles capable of accessing alarm and pre-plan information, this argument takes on even more significance. Kotowicz's recognition of the importance of the driver function is a point well taken, both in terms of firefighter safety and operational efficiency.

The research found a surprising, nontraditional role for chief's aides by the Springfield, Illinois, Fire Department, which assigned aides additional duties as "on-site" safety officers (Steil & Melton, 1995). Springfield's unique, proactive approach focused on increasing the productivity of the aides' position, as opposed to eliminating the position due to financial constraints.

The survey results indicated that fire departments that do not provide aides have a limited number of options to provide on-scene support to ICs. The vast majority of such fire departments (124 of 138, or 89.9 percent), take no specific steps to provide assistance for the IC, other than allowing the chief to recruit an aide from available on-scene personnel, or recalling off-duty personnel. Recruiting an aide from available on-scene resources has a number of drawbacks. First, as discussed above, the chief is placed at increased risk while operating the vehicle en route to the incident, is unable to devote full attention to radio messages and mental size up while en route, and cannot start preparing the tactical worksheet until he/she arrives on the scene, at which point he/she is already playing catch-up.

Second, recruiting a member from "available" on-scene resources means taking a member away from his or her assigned company. Removing a member from a company violates basic crew integrity principles and creates the potential for accountability-related problems. Removing a member from a company that is already minimally staffed with three or four firefighters, would negatively affect that company's efficiency as well as safety (Varone, 1994).

Third, the member drafted to serve as "aide" would be untrained and, perhaps more importantly, inexperienced in serving as an aide. Fourth, unfamiliarity between the chief and the aide creates a situation ripe for miscommunication. Finally, the chief may not be willing to trust the judgment of someone with whom he/she is unfamiliar with critical tasks such as observing the rear of a building for signs of structural weakness. All of these factors are likely to increase, instead of decrease, the stress on an IC who selects an aide from among personnel available on scene. Under such circumstances, ICs may well be inclined not to assign an aide, thereby running the risk of being overwhelmed and ineffective in managing the incident.

Relying upon the recall of off-duty members to serve as an aide interposes many of the above drawbacks, plus adds in an inevitable delay between the time the recall request is made, and the member arrives on scene. Another option is to call for an additional unit or chief officer specifically to serve as an aide. However, many of the above drawbacks still apply, in particular, the delay between the request and the arrival of the additional help. Furthermore, the chief would continually be faced with the dilemma of whether to deploy the additional company to address immediate tactical needs, or use them to assist with administrative matters. Thus, recruiting an aide from among personnel available on scene, recalling off-duty personnel, or calling for additional assistance are unreliable solutions to the problem created by not assigning aides.

The research showed that of the 138 fire departments that do not provide aides to all command level officers on a full-time basis, 14 (10.1 percent) have addressed the problem by providing some sort of a specialized unit to assist the IC. Such units included mobile command posts staffed with specially trained aides, on-duty staff officers, or the assignment of units such as paramedic, squad, or other line companies with special training and instructions to assist the IC in managing the incident. The procedure adopted by the Pittsburgh Fire Department previously described above, offers a number of advantages over recruiting an aide from among on-scene personnel. First of all, the members of a specific unit can reasonably be trained to meet minimum standards for aides. Secondly, members of such a company would likely gain the necessary experience from having fulfilled the role of aide on a regular basis. Thirdly, having an entire company to serve as aides, allows a number of administrative/aide type duties to be accomplished simultaneously.

However, there are a number of drawbacks to using such an "aide unit" instead of an aide. The chief would not have a driver, which creates safety and efficiency problems already discussed. Second, there may be a delay in the arrival of the aide unit, leaving a gap between the arrival of the chief and the arrival of the unit. Third, if only one unit is available city-wide, it would inevitably be committed quite often, and thus the chief responding to a second incident would be without an aide. Fourth, the members of the aide unit must become familiar with the idiosyncrasies of a number of different chief officers, all of whom may operate differently, creating the potential for communication problems. The converse of this is that the ICs must become familiar with a number of different "aides," learning each person's strengths and weaknesses, and determining who can be trusted to carry out what types of assignments competently. Lastly, maintaining a single aide unit with three, four, or five members assigned, may be more costly than assigning an aide to each command level officer. Certainly in



Providence, where there are only three on-duty chief officers, maintaining a three-person "aide" unit would not prove to be cost-effective.

In closing, the risk of an IC being overwhelmed at an emergency scene by strategic, tactical, administrative, and communication matters poses a real threat to the safety of firefighters, as well as to operational efficiency. Routley's (1995), investigation of the Seattle warehouse fire, established the fact that firefighter safety can be compromised when command level officers are not provided with aides to carry some of the increased burden placed on incident commanders in the 1990s. Although a number of options and alternatives exist to assist the command level officer with the increased administrative responsibilities, none can be counted on to perform the critical functions of an aide to a reasonable level of effectiveness.

## **RECOMMENDATIONS**

The Providence Fire Department should continue to provide aides to Deputy Assistant Chiefs and Battalion Chiefs on a full-time basis. Aides fulfill a vital role in a modern, urban fire department such as the Providence Fire Department. The complexity of incidents in the City of Providence as well as the increased demands placed upon command level officers in terms of using an ICS, accounting for the location and function of all personnel on-scene, incident documentation requirements, rapid intervention crews, crew rotation requirements, and managing multichannel radio operations, warrant the assignment of aides on a full-time basis for reasons for firefighter safety and operational efficiency.

A specific SOP and job description for the aide's position should be developed so that the role of aide will be clear to all members, and can be articulated and justified to skeptical City officials. Once the SOP is developed, a training program should be implemented to ensure that all aides have the minimum requisite knowledge to effectively perform their duties.

The Department should upgrade the position of aide to the rank of Fire Captain, and assign additional collateral duties to the captains, commensurate with that rank. Collateral duties should include overseeing training within the Battalion; administrative duties to assist the Department Safety Officer with matters such as protective clothing inspections, calibration of air monitoring instruments, accident and injury investigations, and similar responsibilities; and administrative duties to assist the Battalion Chief. The focus of this upgrade should be to increase the productivity of the aide's position during nonemergency periods, while providing the IC with the most capable and well trained assistant possible at emergency scenes. The captain's rank will have the added benefit of ensuring that only experienced members of the department are used as aides, and will result in safer, better organized, and more efficient emergency scene operations.

Additional research is needed to confirm the results of this research, and to look at a number of related concepts pertaining to aides. Among the areas where additional research is recommended is evaluating cost-effective alternatives to aides, such as the Pittsburgh "safety unit" concept; examining apparatus accident statistics to better understand the safety aspects of having chief officers drive themselves compared to having aides drive them; determining at what

point during the course of an incident, the aide is most valuable (i.e., is it during the first few hectic minutes after arriving on the scene, or is it as the incident starts to expand in size and complexity); and comparing objective measurements (fire-loss data or firefighter injury statistics for example), of fire departments that provide aides with comparable fire departments that do not provide aides, to determine if any statistical difference can be identified.

Additional research is also needed to determine if the NFPA should include chief's aides in recommended staffing assignments for municipal fire departments in light of the increased demands being placed upon ICs. Finally, agencies such as the United States Fire Administration, the NFPA, and others who investigate firefighter deaths and injuries, should cue their investigators to consider whether ICs (with or without aides) are being overwhelmed by the magnitude of their responsibilities, and make appropriate recommendations to address any shortcomings identified.



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## APPENDIX A

### Aides for Command Level Officers Survey

1. Please answer the following questions about your fire department
    - A. Population served  
under 25,000 \_\_\_\_\_  
25,000 - 99,999 \_\_\_\_\_  
100,000 - 249,999 \_\_\_\_\_  
250,000 - 499,999 \_\_\_\_\_  
over 500,000 \_\_\_\_\_
    - B. Department Type: Fully paid \_\_\_\_\_  
Combination \_\_\_\_\_  
Fully Volunteer \_\_\_\_\_
    - C. Response area includes: Rural \_\_\_\_\_  
Suburban \_\_\_\_\_  
Urban \_\_\_\_\_
  2. Geographic Location:  
\_\_\_\_\_ Northeast CT, ME, MA, NH, NJ, NY, PA, RI, VT.  
\_\_\_\_\_ North Central IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI.  
\_\_\_\_\_ South AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV  
\_\_\_\_\_ West AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY
  3. How many total responses does your department handle annually? (Please include all fire department responses including fire department emergency medical responses if provided, haz mat, service calls, false alarms, etc.). \_\_\_\_\_
  4. At the present time does your fire department use:

	YES	NO
A. An Incident Command or Incident Management System	_____	_____
B. A formalized accountability system (Formalized in that there is an SOP, training, etc., that document the system)	_____	_____
- The term "command level line officer" means the person who will be in overall command of a working structure fire once all responding companies on the first alarm have arrived on scene. Included are any other line officers who are senior in rank that may later assume command of such an incident should the incident continue to expand. In most fire departments this would refer to Battalion Chiefs and above.
5. Are your command level line officers presently assigned aides? (Circle best answer)
    - A. All command level line officers are assigned aides
    - B. Some command level line officers are assigned aides based upon rank
    - C. Some command level line officers are assigned aides based upon activity level
    - D. Command level line officers are assigned aides only when staffing permits
    - E. Command level line officers are assigned aides only during unusual conditions (For example, severe weather, civil unrest, etc.)
    - F. Command level line officers are not assigned aides



If your answer to Question 5 was other than (A), please answer Question 6.

6. (a) If command level line officers are generally not provided with aides in your department, does your department have a procedure by which the command level officer can obtain administrative assistance at a particular incident? Yes or no? \_\_\_\_\_

If yes, please describe the procedure (Continue on separate sheet if necessary)

- (b) Did your department ever provide aides to command level line officers, Yes or No? \_\_\_\_\_

If yes, what were the reasons that the positions were eliminated

- \_\_\_\_\_ Financial - eliminated to save money  
\_\_\_\_\_ Eliminated because they were not necessary  
\_\_\_\_\_ Not sure  
\_\_\_\_\_ Other (Please Describe) \_\_\_\_\_

What year (approximately) were the aides positions eliminated? \_\_\_\_\_

7. Has your department ever eliminated aides for command level line officers, and then reinstated the positions. Yes or No? \_\_\_\_\_

If yes, what were the reasons that the aides were reinstated:

- \_\_\_\_\_ Necessity of aides was recognized after they were eliminated  
\_\_\_\_\_ Financial condition of municipality improved  
\_\_\_\_\_ Not sure  
\_\_\_\_\_ Other (Please Describe)

Please note that your department will not be identified by name in the research. However, I ask your cooperation in providing your department's name so that duplicate responses from the same department can be prevented.

Department: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Telephone or e-mail: \_\_\_\_\_

pasteup of department of public safety, fire department letter



## APPENDIX B

### Demographic Information About Fire Departments Responding to the Survey

Surveys mailed/handed out    214  
 Surveys returned                161    75.23%

			Type of Department			Geographic Location			
Population Served		%	Paid	Comb	Vol	NE	NC	S	W
under 25,000	9	5.59%	4	5	0	0	5	2	2
25,000 – 99,999	31	19.25%	27	4	0	11	9	5	6
100,000 – 249,999	42	26.09%	38	4	0	7	8	15	12
250,000 – 499,999	38	23.60%	32	6	0	3	5	18	12
Over 500,000	41	25.47%	36	5	0	3	6	20	12
Totals			137	24	0	24	33	60	44
Areas Served									
Urban	125	77.64%	117	8	0	19	24	47	34
Suburban	31	19.25%	19	12	0	5	7	13	7
Rural	5	3.11%	1	4	0	0	2	0	3
Totals			137	24	0	24	33	60	44